

CLAIMS

1. A method of measuring the amount of a coating on a paper web, in which method the amount (CA) of at least one component of the coating (2) on the paper web (1) is measured, **characterized** by
- 5 measuring the composition (CC) of the coating (2) to be transferred to the paper web (1), and
- determining the amount (CW) of the coating (2) on the paper web (1) on the basis of the amount (CA) of at least one component of the coating (2) on the paper web (1) and the composition (CC) of the coating (2) to be
- 10 transferred to the paper web (1).
2. A method as claimed in claim 1, **characterized** by further adjusting the amount (CW) of the coating (2) on the paper web (1) on the basis of the measurement of the amount (CW) of the coating (2) on the paper web (1).
- 15 3. A method as claimed in claim 1 or 2, **characterized** by measuring the amount (CA) of at least one component of the coating (2) on the paper web (1) by reflection measurement.
4. A method as claimed in claim 3, **characterized** by measuring the amount (CA) of at least one component of the coating (2) on the paper web (1) by reflection measurement based on infrared technique.
- 20 5. A method as claimed in any one of the preceding claims, **characterized** by determining the composition (CC) of the coating (2) to be transferred to the paper web (1) by reflection measurement based on infrared technique.
- 25 6. A method as claimed in any one of claims 1 to 4, **characterized** by determining the composition (CC) of the coating (2) to be transferred to the paper web (1) by Raman spectroscopy based on molecular vibration spectroscopy.
7. A method as claimed in any one of the preceding claims, **characterized** by measuring the amount (CA) of at least one component of the coating (2) on the paper web (1) continuously.
- 30 8. A method as claimed in any one of the preceding claims, **characterized** by the amount (CA) of at least one component of the coating (2) on the paper web (1) being the amount of a pigment in the coating
- 35 on the paper web (1).

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9. A method as claimed in any one of the preceding claims, **characterized** by determining the composition (CC) of the coating (2) to be transferred to the paper web (1) continuously.

10. An apparatus for measuring the amount of a coating on a paper web, **characterized** in that the apparatus comprises

a first measuring device (17) arranged to measure the amount (CA) of at least one component in the coating (2) on the paper web (1) by reflection measurement,

a second measuring device (18) arranged to measure the composition (CC) of the coating (2) to be transferred to the paper web (1), and

a data processing device (19) arranged to determine the amount (CW) of the coating (2) on the paper web (1) on the basis of the amount (CA) of at least one component of the coating (2) on the paper web (1) and the composition (CC) of the coating (2) to be transferred to the paper web (1).

11. An apparatus as claimed in claim 10, **characterized** in that the apparatus further comprises a control device (20) arranged to adjust the amount (CW) of the coating (2) on the paper web (1) on the basis of the measurement of the amount (CW) of the coating (2) on the paper web (1).

12. An apparatus as claimed in claim 10 or 11, **characterized** in that the first measuring device (17) is arranged to measure the amount (CA) of at least one component of the coating (2) on the paper web (1) by reflection measurement.

13. An apparatus as claimed in claim 12, **characterized** in that the first measuring device (17) is arranged to measure the amount (CA) of at least one component of the coating (2) on the paper web (1) by reflection measurement based on infrared technique.

14. An apparatus as claimed in any one of claims 10 to 13, **characterized** in that the second measuring device (18) is arranged to determine the composition (CC) of the coating (2) to be transferred to the paper web (1) by reflection measurement based on infrared technique.

15. An apparatus as claimed in any one of claims 10 to 13, **characterized** in that the second measuring device (18) is arranged to determine the composition (CC) of the coating (2) to be transferred to the paper web (1) by Raman spectroscopy based on molecular vibration spectroscopy.

16. An apparatus as claimed in any one of claims 10 to 15, **characterized**

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acterized in that the first measuring device (17) is arranged to measure the amount (CA) of at least one component of the coating (2) on the paper web (1) continuously.

5 17. An apparatus as claimed in any one of claims 10 to 16, **characterized** in that the amount (CA) of at least one component of the coating (2) on the paper web (1) is the amount of a pigment in the coating (2) on the paper web (1).

10 18. An apparatus as claimed in any one of claims 10 to 17, **characterized** in that the second measuring device (18) is arranged to determine the composition (CC) of the coating (2) to be transferred to the paper web (1) continuously.

15 19. An apparatus as claimed in any one of claims 10 to 18, **characterized** in that the second measuring device (18) is arranged in a coating colour reservoir (4) in a coating head (3), in a coating (2) mixer (13), in a feed line between the mixer (13) and the coating colour reservoir (4) or in a separate sample line leaving the coating colour reservoir (4).

20 20. An apparatus as claimed in any one of claims 10 to 18, **characterized** in that the second measuring device (18) is arranged in a coating colour reservoir (4) in a coating head (3), in a coating (2) storage or machine tank, in a transfer line between the storage and machine tanks, in a transfer line between the machine tank and the coating colour reservoir (4), in a separate sample line leaving the storage or machine tank or in a separate sample line leaving the coating colour reservoir (4).